

37.4.5.2.2 Not less than 50 percent of the required egress capacity shall be located independent of the main entrance/exit doors.

37.4.5.3 Storage, Arrangement, Protection, and Quantities of Hazardous Commodities. The storage, arrangement, protection, and quantities of hazardous commodities shall be in accordance with the applicable provisions of the following:

- (1) NFPA 13, *Standard for the Installation of Sprinkler Systems*
- (2) NFPA 30, *Flammable and Combustible Liquids Code*
- (3) NFPA 30B, *Code for the Manufacture and Storage of Aerosol Products*
- (4) NFPA 230, *Standard for the Fire Protection of Storage*
- (5) NFPA 430, *Code for the Storage of Liquid and Solid Oxidizers*
- (6) NFPA 432, *Code for the Storage of Organic Peroxide Formulations*
- (7) NFPA 434, *Code for the Storage of Pesticides*
- (8) NFPA 1124, *Code for the Manufacture, Transportation, Storage, and Retail Sales of Fireworks and Pyrotechnic Articles*

37.4.5.4 Detection, Alarm, and Communications Systems.

37.4.5.4.1 General. Bulk merchandising retail buildings shall be provided with a fire alarm system in accordance with Section 9.6.

37.4.5.4.2 Initiation. Initiation of the required fire alarm system shall be by means of the required approved automatic sprinkler system (see 37.4.5.5) in accordance with 9.6.2.1(3).

37.4.5.4.3 Occupant Notification. During all times that the mercantile occupancy is occupied, the required fire alarm system, once initiated, shall perform one of the following functions:

- (1) It shall activate an alarm in accordance with 9.6.3 throughout the mercantile occupancy, and positive alarm sequence in accordance with 9.6.3.4 shall be permitted.
- (2) It shall activate an alarm signal in a continuously attended location for the purpose of initiating emergency action, by personnel trained to respond to emergencies, as follows:
 - (a) Emergency action shall be initiated by means of live voice public address system announcements originating from the attended location where the alarm signal is received, unless otherwise permitted by 37.4.5.4.3(2)(c).
 - (b) The live voice public address system shall be permitted to be used for other announcements, provided that the emergency action use takes precedence over any other use.
 - (c) In lieu of live voice public address system announcements, any other occupant notification means in accordance with 9.6.3 shall be permitted.

37.4.5.4.4 Emergency Forces Notification. Emergency forces notification shall be provided and shall include notifying the following:

- (1) Fire department in accordance with 9.6.4
- (2) Local emergency organization, if provided

37.4.5.5 Extinguishing Requirements. Bulk merchandising retail buildings shall be protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1) and the applicable provisions of the following:

- (1) NFPA 1, *Uniform Fire Code*
- (2) NFPA 13, *Standard for the Installation of Sprinkler Systems*
- (3) NFPA 30, *Flammable and Combustible Liquids Code*
- (4) NFPA 30B, *Code for the Manufacture and Storage of Aerosol Products*

37.4.5.6 Emergency Plan and Employee Training.

37.4.5.6.1 There shall be in effect an approved written plan for the emergency egress and relocation of occupants.

37.4.5.6.2 All employees shall be instructed and periodically drilled with respect to their duties under the plan.

37.5 Building Services.

37.5.1 Utilities. Utilities shall comply with the provisions of Section 9.1.

37.5.2 Heating, Ventilating, and Air-Conditioning. Heating, ventilating, and air-conditioning equipment shall comply with the provisions of Section 9.2.

37.5.3 Elevators, Escalators, and Conveyors. Elevators, escalators, and conveyors shall comply with the provisions of Section 9.4.

37.5.4 Rubbish Chutes, Incinerators, and Laundry Chutes. Rubbish chutes, incinerators, and laundry chutes shall comply with the provisions of Section 9.5.

37.6 Reserved.

37.7 Operating Features.

37.7.1 Drills. In every Class A or Class B mercantile occupancy, employees shall be periodically trained in accordance with Section 4.7.

37.7.2 Extinguisher Training. Employees of mercantile occupancies shall be periodically instructed in the use of portable fire extinguishers.

37.7.3 Food Service Operations. Food service operations shall comply with 13.7.2.

37.7.4 Upholstered Furniture and Mattresses. The provisions of 10.3.2 shall not apply to upholstered furniture and mattresses.

Chapter 38 New Business Occupancies

38.1 General Requirements.

38.1.1 Application.

38.1.1.1 The requirements of this chapter shall apply to new buildings or portions thereof used as business occupancies (see 1.3.1).

38.1.1.2 The provisions of this chapter shall apply to life safety requirements for all new business buildings.

38.1.1.3 Additions to existing buildings shall conform to the requirements of 4.6.7. Existing portions of the structure shall not be required to be modified, provided that the new construction has not diminished the fire safety features of the facility.

38.1.2 Multiple Occupancies.

38.1.2.1 General.

38.1.2.1.1 All multiple occupancies shall be in accordance with 6.1.14 and 38.1.2.

38.1.2.1.2 Where there are differences in the specific requirements in this chapter and provisions for mixed occupancies or separated occupancies as specified in 6.1.14.3 and 6.1.14.4, the requirements of this chapter shall apply.

38.1.2.2 Combined Business Occupancies and Parking Structures.

38.1.2.2.1 The fire barrier separating parking structures from a building classified as a business occupancy shall be a fire barrier having a fire resistance rating of not less than 2 hours.

38.1.2.2.2 Openings in the fire barrier required by 38.1.2.2.1 shall not be required to be protected with fire protection-rated opening protectives in enclosed parking structures that are protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1), or in open parking structures, provided that all of the following conditions are met:

- (1) The openings do not exceed 25 percent of the area of the fire barrier in which they are located.
- (2) The openings are used as a public entrance and for associated sidelight functions.
- (3) The building containing the business occupancy is protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1).
- (4)*Means are provided to prevent spilled fuel from accumulating adjacent to the openings and entering the building.
- (5) Physical means are provided to prevent vehicles from being parked or driven within 10 ft (3050 mm) of the openings.
- (6) The openings are protected as a smoke partition in accordance with Section 8.4, with no minimum fire protection rating required.

38.1.3 Special Definitions. Special terms applicable to this chapter are defined in Chapter 3.

38.1.4 Classification of Occupancy. Business occupancies shall include all buildings and structures or parts thereof with occupancy as defined in 6.1.11.

38.1.5 Classification of Hazard of Contents. The contents of business occupancies shall be classified as ordinary hazard in accordance with Section 6.2.

38.1.6 Minimum Construction Requirements. (No requirements)

38.1.7 Occupant Load. The occupant load, in number of persons for whom means of egress and other provisions are required, shall be determined on the basis of the occupant load factors of Table 7.3.1.2 that are characteristic of the use of the space, or shall be determined as the maximum probable population of the space under consideration, whichever is greater.

38.2 Means of Egress Requirements.**38.2.1 General.**

38.2.1.1 All means of egress shall be in accordance with Chapter 7 and this chapter.

38.2.1.2 If, owing to differences in grade, any street floor exits are at points above or below the street or ground level, such exits shall comply with the provisions for exits from upper floors or floors below the street floor.

38.2.1.3 Stairs and ramps serving two or more floors below a street floor occupied for business use shall be permitted in accordance with 38.2.1.3.1 and 38.2.1.3.2.

38.2.1.3.1 Where two or more floors below the street floor are occupied for business use, the same stairs or ramps shall be permitted to serve each.

38.2.1.3.2 An inside open stairway or inside open ramp shall be permitted to serve as a required egress facility from not more than one floor level below the street floor.

38.2.1.4 Floor levels that are below the street floor; are used only for storage, heating, and other service equipment; and are not subject to business occupancy shall have means of egress in accordance with Chapter 42.

38.2.2 Means of Egress Components.

38.2.2.1 Components Permitted. Means of egress components shall be limited to the types described in 38.2.2.2 through 38.2.2.12.

38.2.2.2 Doors.

38.2.2.2.1 Doors complying with 7.2.1 shall be permitted.

38.2.2.2.2* Locks complying with 7.2.1.5.4 shall be permitted only on principal entrance/exit doors.

38.2.2.2.3 Reserved.

38.2.2.2.4 Delayed-egress locks complying with 7.2.1.6.1 shall be permitted.

38.2.2.2.5 Access-controlled egress doors complying with 7.2.1.6.2 shall be permitted.

38.2.2.2.6 Horizontal or vertical security grilles or doors complying with 7.2.1.4.1.4 shall be permitted to be used as part of the required means of egress from a tenant space.

38.2.2.2.7 Reserved.

38.2.2.2.8 Revolving doors complying with 7.2.1.10 shall be permitted.

38.2.2.3 Stairs.

38.2.2.3.1 Stairs complying with 7.2.2 shall be permitted.

38.2.2.3.2 Spiral stairs complying with 7.2.2.2.3 shall be permitted.

38.2.2.4 Smokeproof Enclosures. Smokeproof enclosures complying with 7.2.3 shall be permitted.

38.2.2.5 Horizontal Exits. Horizontal exits complying with 7.2.4 shall be permitted.

38.2.2.6 Ramps. Ramps complying with 7.2.5 shall be permitted.

38.2.2.7 Exit Passageways. Exit passageways complying with 7.2.6 shall be permitted.

38.2.2.8 Reserved.**38.2.2.9 Reserved.**

38.2.2.10 Fire Escape Ladders. Fire escape ladders complying with 7.2.9 shall be permitted.

38.2.2.11 Alternating Tread Devices. Alternating tread devices complying with 7.2.11 shall be permitted.

38.2.2.12 Areas of Refuge.

38.2.2.12.1 Areas of refuge complying with 7.2.12 shall be permitted.

38.2.2.12.2 In buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1), two rooms or spaces separated from each other by smoke-resistant partitions in accordance with the definition of area of refuge in 3.3.18 shall not be required.

38.2.3 Capacity of Means of Egress.

38.2.3.1 The capacity of means of egress shall be in accordance with Section 7.3.

38.2.3.2* The clear width of any corridor or passageway serving an occupant load of 50 or more shall be not less than 44 in. (1120 mm).

38.2.3.3 Street floor exits shall be sufficient for the occupant load of the street floor plus the required capacity of stairs and ramps discharging through the street floor.

38.2.4 Number of Exits.

38.2.4.1 Exits shall comply with the following, except as otherwise permitted by 38.2.4.2 through 38.2.4.6:

- (1) The number of means of egress shall be in accordance with Section 7.4.
- (2) Not less than two separate exits shall be provided on every story.
- (3) Not less than two separate exits shall be accessible from every part of every story.

38.2.4.2 Exit access, as required by 38.2.4.1(3), shall be permitted to include a single exit access path for the distances permitted as common paths of travel by 38.2.5.3.

38.2.4.3 A single exit shall be permitted for a room or area with a total occupant load of fewer than 100 persons, provided that the following criteria are met:

- (1) The exit shall discharge directly to the outside at the level of exit discharge for the building.
- (2) The total distance of travel from any point, including travel within the exit, shall not exceed 100 ft (30 m).
- (3) The total distance of travel specified in 38.2.4.3(2) shall be on the same floor level or, if traversing of stairs is necessary, such stairs shall not exceed 15 ft (4570 mm) in height, and the stairs shall be provided with complete enclosures to separate them from any other part of the building, with no door openings therein.
- (4) A single outside stair in accordance with 7.2.2 shall be permitted to serve all floors permitted within the 15 ft (4570 mm) vertical travel limitation.

38.2.4.4 Any business occupancy not exceeding three stories, and not exceeding an occupant load of 30 people per floor, shall be permitted a single separate exit to each floor, provided that the following criteria are met:

- (1) This arrangement shall be permitted only where the total travel distance to the outside of the building does not exceed 100 ft (30 m) and where the exit is enclosed in accordance with 7.1.3.2, serves no other levels, and discharges directly to the outside.
- (2) A single outside stair in accordance with 7.2.2 shall be permitted to serve all floors.

38.2.4.5 A single means of egress shall be permitted from a mezzanine within a business occupancy, provided that the common path of travel does not exceed 75 ft (23 m), or 100 ft (30 m) if protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1).

38.2.4.6 A single exit shall be permitted for a maximum two-story, single-tenant space/building that is protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1) and where the total travel to the outside does not exceed 100 ft (30 m).

38.2.5 Arrangement of Means of Egress.

38.2.5.1 Means of egress shall be arranged in accordance with Section 7.5.

38.2.5.2 Dead-end corridors shall be permitted in accordance with 38.2.5.2.1 or 38.2.5.2.2.

38.2.5.2.1 In buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1), dead-end corridors shall not exceed 50 ft (15 m).

38.2.5.2.2 In buildings other than those complying with 38.2.5.2.1, dead-end corridors shall not exceed 20 ft (6100 mm).

38.2.5.3 Limitations on common path of travel shall be in accordance with 38.2.5.3.1, 38.2.5.3.2, and 38.2.5.3.3.

38.2.5.3.1 Common path of travel shall not exceed 100 ft (30 m) in a building protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1).

38.2.5.3.2 Common path of travel shall not exceed 100 ft (30 m) within a single tenant space having an occupant load not exceeding 30 persons.

38.2.5.3.3 In buildings other than those complying with 38.2.5.3.1 or 38.2.5.3.2, common path of travel shall not exceed 75 ft (23 m).

38.2.6 Travel Distance to Exits.

38.2.6.1 In buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1), the travel distance shall not exceed 300 ft (91 m).

38.2.6.2 In buildings other than those complying with 38.2.6.1, the travel distance, measured in accordance with Section 7.6, shall not exceed 200 ft (61 m).

38.2.7 Discharge from Exits. Exit discharge shall comply with Section 7.7.

38.2.8 Illumination of Means of Egress. Means of egress shall be illuminated in accordance with Section 7.8.

38.2.9 Emergency Lighting.

38.2.9.1 Emergency lighting shall be provided in accordance with Section 7.9 in any building where any one of the following conditions exists:

- (1) The building is two or more stories in height above the level of exit discharge.
- (2) The occupancy is subject to 50 or more occupants above or below the level of exit discharge.
- (3) The occupancy is subject to 300 or more total occupants.

38.2.9.2 Emergency lighting in accordance with Section 7.9 shall be provided for all underground and limited access structures, as defined in 3.3.240.3 and 3.3.240.11.

38.2.10 Marking of Means of Egress. Means of egress shall have signs in accordance with Section 7.10.

38.2.11 Special Means of Egress Features.**38.2.11.1 Reserved.**

38.2.11.2 Lockups. Lockups in business occupancies shall comply with the requirements of 22.4.5.

38.3 Protection.

38.3.1 Protection of Vertical Openings.

38.3.1.1 Vertical openings shall be enclosed or protected in accordance with Section 8.6, unless otherwise permitted by the following:

- (1) Unenclosed vertical openings in accordance with 8.6.8.2 shall be permitted.
- (2) Exit access stairs shall be permitted to be unenclosed in two-story, single-tenant spaces that are provided with a single exit in accordance with 38.2.4.6.

38.3.1.2 Floors that are below the street floor and are used for storage or other than a business occupancy shall have no unprotected openings to business occupancy floors.

38.3.2 Protection from Hazards.

38.3.2.1* **General.** Hazardous areas including, but not limited to, areas used for general storage, boiler or furnace rooms, and maintenance shops that include woodworking and painting areas shall be protected in accordance with Section 8.7.

38.3.2.2* **High Hazard Contents Areas.** High hazard contents areas, as classified in Section 6.2, shall meet the following criteria:

- (1) The area shall be separated from other parts of the building by fire barriers having a fire resistance rating of not less than 1 hour, with all openings therein protected by ¾-hour, fire protection-rated, self-closing fire door assemblies.
- (2) The area shall be protected by an automatic extinguishing system in accordance with 9.7.1.1(1) or 9.7.1.2.

38.3.2.3 **Cooking Equipment.** Cooking equipment shall be protected in accordance with 9.2.3, unless the cooking equipment is one of the following types:

- (1) Outdoor equipment
- (2) Portable equipment not flue connected
- (3) Equipment used only for food warming

38.3.3 Interior Finish.

38.3.3.1 **General.** Interior finish shall be in accordance with Section 10.2.

38.3.3.2 Interior Wall and Ceiling Finish.

38.3.3.2.1 Interior wall and ceiling finish material complying with Section 10.2 shall be Class A or Class B in exits and in exit access corridors.

38.3.3.2.2 Interior wall and ceiling finishes shall be Class A, Class B, or Class C in areas other than those specified in 38.3.3.2.1.

38.3.3.3 Interior Floor Finish.

38.3.3.3.1 Interior floor finish shall comply with Section 10.2.

38.3.3.3.2 Interior floor finish in exit enclosures shall be Class I or Class II.

38.3.3.3.3 Interior floor finish shall comply with 10.2.7.1 or 10.2.7.2, as applicable.

38.3.4 Detection, Alarm, and Communications Systems.

38.3.4.1 **General.** A fire alarm system in accordance with Section 9.6 shall be provided in all business occupancies where any one of the following conditions exists:

- (1) The building is two or more stories in height above the level of exit discharge.
- (2) The occupancy is subject to 50 or more occupants above or below the level of exit discharge.
- (3) The occupancy is subject to 300 or more total occupants.

38.3.4.2 **Initiation.** Initiation of the required fire alarm system shall be by one of the following means:

- (1) Manual means in accordance with 9.6.2.1(1)
- (2) Means of an approved automatic fire detection system that complies with 9.6.2.1(2) and provides protection throughout the building
- (3) Means of an approved automatic sprinkler system that complies with 9.6.2.1(3) and provides protection throughout the building

38.3.4.3 **Occupant Notification.** During all times that the building is occupied, the required fire alarm system, once initiated, shall perform one of the following functions:

- (1) It shall activate a general alarm in accordance with 9.6.3 throughout the building, and positive alarm sequence in accordance with 9.6.3.4 shall be permitted.
- (2) It shall activate an alarm signal in a continuously attended location for the purpose of initiating emergency action, by personnel trained to respond to emergencies, as follows:
 - (a) Emergency action shall be initiated by means of live voice public address system announcements originating from the attended location where the alarm signal is received, unless otherwise permitted by 38.3.4.3(2)(c).
 - (b) The live voice public address system shall be permitted to be used for other announcements, provided that the emergency action use takes precedence over any other use.
 - (c) In lieu of live voice public address system announcements, any other occupant notification means in accordance with 9.6.3 shall be permitted.

38.3.5 **Extinguishment Requirements.** Portable fire extinguishers shall be provided in every business occupancy in accordance with 9.7.4.1.

38.3.6 Corridors.

38.3.6.1* Where access to exits is provided by corridors, such corridors shall be separated from use areas by walls having a fire resistance rating of not less than 1 hour in accordance with Section 8.3, unless one of the following conditions exists:

- (1)*Where exits are available from an open floor area
- (2)*Within a space occupied by a single tenant
- (3) Within buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1)

38.3.6.2 Openings in corridor walls required by 38.3.6.1 to have a fire resistance rating shall be protected in accordance with Section 8.3.

38.3.7 **Subdivision of Building Spaces.** (No special requirements)

38.4 Special Provisions.

38.4.1 **Limited Access or Underground Buildings.** See Section 11.7.

38.4.2* **High-Rise Buildings.** High-rise buildings shall comply with Section 11.8.

38.5 Building Services.

38.5.1 Utilities. Utilities shall comply with the provisions of Section 9.1.

38.5.2 Heating, Ventilating, and Air-Conditioning. Heating, ventilating, and air-conditioning equipment shall comply with the provisions of Section 9.2.

38.5.3 Elevators, Escalators, and Conveyors. Elevators, escalators, and conveyors shall comply with the provisions of Section 9.4.

38.5.4 Rubbish Chutes, Incinerators, and Laundry Chutes. Rubbish chutes, incinerators, and laundry chutes shall comply with the provisions of Section 9.5.

38.6 Reserved.

38.7 Operating Features.

38.7.1 Drills. In all business occupancy buildings occupied by more than 500 persons, or by more than 100 persons above or below the street level, employees and supervisory personnel shall be periodically instructed in accordance with Section 4.7 and shall hold drills periodically where practicable.

38.7.2 Extinguisher Training. Designated employees of business occupancies shall be periodically instructed in the use of portable fire extinguishers.

38.7.3 Food Service Operations. Food service operations shall comply with 12.7.2.

38.7.4 Upholstered Furniture and Mattresses. The provisions of 10.3.2 shall not apply to upholstered furniture and mattresses.

Chapter 39 Existing Business Occupancies

39.1 General Requirements.

39.1.1 Application.

39.1.1.1 The requirements of this chapter shall apply to existing buildings or portions thereof currently occupied as business occupancies.

39.1.1.2 The provisions of this chapter shall apply to life safety requirements for existing business buildings. Specific requirements shall apply to high-rise buildings (*see definition in 3.3.28.7*) and are contained in paragraphs pertaining thereto.

39.1.2 Multiple Occupancies.

39.1.2.1 General.

39.1.2.1.1 All multiple occupancies shall be in accordance with 6.1.14 and 39.1.2.

39.1.2.1.2 Where there are differences in the specific requirements in this chapter and provisions for mixed occupancies or separated occupancies as specified in 6.1.14.3 and 6.1.14.4, the requirements of this chapter shall apply.

39.1.2.2 Combined Business Occupancies and Parking Structures.

39.1.2.2.1 The fire barrier separating parking structures from a building classified as a business occupancy shall be a fire barrier having a fire resistance rating of *not less than 2 hours*.

39.1.2.2.2 Openings in the fire barrier required by 39.1.2.2.1 shall not be required to be protected with fire protection-rated opening protectives in enclosed parking structures that are protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1), or in open parking structures, provided that all of the following conditions are met:

- (1) The openings do not exceed 25 percent of the area of the fire barrier in which they are located.
- (2) The openings are used as a public entrance and for associated sidelight functions.
- (3) The building containing the business occupancy is protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1).
- (4)*Means are provided to prevent spilled fuel from accumulating adjacent to the openings and entering the building.
- (5) Physical means are provided to prevent vehicles from being parked or driven within 10 ft (3050 mm) of the openings.
- (6) The openings are protected as a smoke partition in accordance with Section 8.4, with no minimum fire protection rating required.

39.1.3 Special Definitions. Special terms applicable to this chapter are defined in Chapter 3.

39.1.4 Classification of Occupancy. Business occupancies shall include all buildings and structures or parts thereof with occupancy as defined in 6.1.11.

39.1.5 Classification of Hazard of Contents. The contents of business occupancies shall be classified as ordinary hazard in accordance with Section 6.2.

39.1.6 Minimum Construction Requirements. (No requirements)

39.1.7 Occupant Load. The occupant load, in number of persons for whom means of egress and other provisions are required, shall be determined on the basis of the occupant load factors of Table 7.3.1.2 that are characteristic of the use of the space, or shall be determined as the maximum probable population of the space under consideration, whichever is greater.

39.2 Means of Egress Requirements.

39.2.1 General.

39.2.1.1 All means of egress shall be in accordance with Chapter 7 and this chapter.

39.2.1.2 If, owing to differences in grade, any street floor exits are at points above or below the street or ground level, such exits shall comply with the provisions for exits from upper floors or floors below the street floor.

39.2.1.3 Stairs and ramps serving two or more floors below a street floor occupied for business use shall be permitted in accordance with 39.2.1.3.1 and 39.2.1.3.2.

39.2.1.3.1 Where two or more floors below the street floor are occupied for business use, the same stairs, escalators, or ramps shall be permitted to serve each.

39.2.1.3.2 An inside open stairway, inside open escalator, or inside open ramp shall be permitted to serve as a required egress facility from not more than one floor level below the street floor.

39.2.1.4 Floor levels that are below the street floor; are used only for storage, heating, and other service equipment; and are not subject to business occupancy shall have means of egress in accordance with Chapter 42.

39.2.2 Means of Egress Components.

39.2.2.1 Components Permitted. Means of egress components shall be limited to the types described in 39.2.2.2 through 39.2.2.12.

39.2.2.2 Doors.

39.2.2.2.1 Doors complying with 7.2.1 shall be permitted.

39.2.2.2.2* Locks complying with 7.2.1.5.4 shall be permitted only on principal entrance/exit doors.

39.2.2.2.3 The re-entry provisions of 7.2.1.5.7 shall not apply. *[See 7.2.1.5.7.2(1).]*

39.2.2.2.4 Delayed-egress locks complying with 7.2.1.6.1 shall be permitted.

39.2.2.2.5 Access-controlled egress doors complying with 7.2.1.6.2 shall be permitted.

39.2.2.2.6 Horizontal or vertical security grilles or doors complying with 7.2.1.4.1.4 shall be permitted to be used as part of the required means of egress from a tenant space.

39.2.2.2.7 Approved existing horizontal-sliding or vertical-rolling fire doors shall be permitted in means of egress under the following conditions:

- (1) They are held open by fusible links.
- (2) The fusible links are rated at not less than 165°F (74°C).
- (3) The fusible links are located not more than 10 ft (3050 mm) above the floor.
- (4) The fusible links are in immediate proximity to the door opening.
- (5) The fusible links are not located above a ceiling.
- (6) The door is not credited with providing any protection under this *Code*.

39.2.2.2.8 Revolving doors complying with 7.2.1.10 shall be permitted.

39.2.2.3 Stairs.

39.2.2.3.1 Stairs complying with 7.2.2 shall be permitted.

39.2.2.3.2 Spiral stairs complying with 7.2.2.2.3 shall be permitted.

39.2.2.3.3 Winders complying with 7.2.2.2.4 shall be permitted.

39.2.2.4 Smokeproof Enclosures. Smokeproof enclosures complying with 7.2.3 shall be permitted.

39.2.2.5 Horizontal Exits. Horizontal exits complying with 7.2.4 shall be permitted.

39.2.2.6 Ramps. Ramps complying with 7.2.5 shall be permitted.

39.2.2.7 Exit Passageways. Exit passageways complying with 7.2.6 shall be permitted.

39.2.2.8 Escalators and Moving Walks. Escalators and moving walks complying with 7.2.7 shall be permitted.

39.2.2.9 Fire Escape Stairs. Fire escape stairs complying with 7.2.8 shall be permitted.

39.2.2.10 Fire Escape Ladders. Fire escape ladders complying with 7.2.9 shall be permitted.

39.2.2.11 Alternating Tread Devices. Alternating tread devices complying with 7.2.11 shall be permitted.

39.2.2.12 Areas of Refuge.

39.2.2.12.1 Areas of refuge complying with 7.2.12 shall be permitted.

39.2.2.12.2 In buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1), two rooms or spaces separated from each other by smoke-resistant partitions in accordance with the definition of area of refuge in 3.3.18 shall not be required.

39.2.3 Capacity of Means of Egress.

39.2.3.1 The capacity of means of egress shall be in accordance with Section 7.3.

39.2.3.2 The clear width of any corridor or passageway serving an occupant load of 50 or more shall be not less than 44 in. (1120 mm).

39.2.3.3 Street floor exits shall be sufficient for the occupant load of the street floor plus the required capacity of stairs, ramps, escalators, and moving walks discharging through the street floor.

39.2.4 Number of Exits.

39.2.4.1 Exits shall comply with the following, except as otherwise permitted by 39.2.4.2 through 39.2.4.6:

- (1) The number of means of egress shall be in accordance with 7.4.1.1 and 7.4.1.3 through 7.4.1.6.
- (2) Not less than two separate exits shall be provided on every story.
- (3) Not less than two separate exits shall be accessible from every part of every story.

39.2.4.2 Exit access, as required by 39.2.4.1(3), shall be permitted to include a single exit access path for the distances permitted as common paths of travel by 39.2.5.3.

39.2.4.3 A single exit shall be permitted for a room or area with a total occupant load of fewer than 100 persons, provided that the following criteria are met:

- (1) The exit shall discharge directly to the outside at the level of exit discharge for the building.
- (2) The total distance of travel from any point, including travel within the exit, shall not exceed 100 ft (30 m).
- (3) The total distance of travel specified in 39.2.4.3(2) shall be on the same floor level or, if traversing of stairs is necessary, such stairs shall not exceed 15 ft (4570 mm) in height, and the stairs shall be provided with complete enclosures to separate them from any other part of the building, with no door openings therein.
- (4) A single outside stair in accordance with 7.2.2 shall be permitted to serve all floors permitted within the 15 ft (4570 mm) vertical travel limitation.

39.2.4.4 Any business occupancy not exceeding three stories, and not exceeding an occupant load of 30 people per floor, shall be permitted a single separate exit to each floor, provided that the following criteria are met:

- (1) This arrangement shall be permitted only where the total travel distance to the outside of the building does not exceed 100 ft (30 m) and where the exit is enclosed in accordance with 7.1.3.2, serves no other levels, and discharges directly to the outside.
- (2) A single outside stair in accordance with 7.2.2 shall be permitted to serve all floors.

39.2.4.5 A single means of egress shall be permitted from a mezzanine within a business occupancy, provided that the common path of travel does not exceed 75 ft (23 m), or 100 ft (30 m) if protected throughout by an approved automatic sprinkler system in accordance with 9.7.1.1(1).

39.2.4.6 A single exit shall be permitted for a maximum two-story, single-tenant space/building that is protected throughout by an approved automatic sprinkler system in accordance with 9.7.1.1(1) and where the total travel to the outside does not exceed 100 ft (30 m).

39.2.5 Arrangement of Means of Egress.

39.2.5.1 Means of egress shall be arranged in accordance with Section 7.5.

39.2.5.2* Dead-end corridors shall not exceed 50 ft (15 m).

39.2.5.3* Limitation on common path of travel shall be in accordance with 39.2.5.3.1, 39.2.5.3.2, and 39.2.5.3.3.

39.2.5.3.1 Common path of travel shall not exceed 100 ft (30 m) on a story protected throughout by an approved automatic sprinkler system in accordance with 9.7.1.1(1).

39.2.5.3.2 Common path of travel shall not be limited in a single-tenant space with an occupant load not exceeding 30 people.

39.2.5.3.3 In buildings other than those complying with 39.2.5.3.1 or 39.2.5.3.2, common path of travel shall not exceed 75 ft (23 m).

39.2.6 Travel Distance to Exits.

39.2.6.1 In buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1), the travel distance shall not exceed 300 ft (91 m).

39.2.6.2 In buildings other than those complying with 39.2.6.1, the travel distance, measured in accordance with Section 7.6, shall not exceed 200 ft (61 m).

39.2.7 Discharge from Exits. Exit discharge shall comply with Section 7.7.

39.2.8 Illumination of Means of Egress. Means of egress shall be illuminated in accordance with Section 7.8.

39.2.9 Emergency Lighting.

39.2.9.1 Emergency lighting shall be provided in accordance with Section 7.9 in any building where any one of the following conditions exists:

- (1) The building is two or more stories in height above the level of exit discharge.
- (2) The occupancy is subject to 100 or more occupants above or below the level of exit discharge.
- (3) The occupancy is subject to 1000 or more total occupants.

39.2.9.2 Emergency lighting in accordance with Section 7.9 shall be provided for all underground and limited access structures, as defined in 3.3.240.11 and 3.3.240.3.

39.2.10 Marking of Means of Egress. Means of egress shall have signs in accordance with Section 7.10.

39.2.11 Special Means of Egress Features.

39.2.11.1 Reserved.

39.2.11.2 Lockups. Lockups in business occupancies, other than approved existing lockups, shall comply with the requirements of 23.4.5.

39.3 Protection.

39.3.1 Protection of Vertical Openings.

39.3.1.1 Vertical openings shall be enclosed or protected in accordance with Section 8.6, unless otherwise permitted by the following:

- (1) Unenclosed vertical openings in accordance with 8.6.8.2 shall be permitted.
- (2) Exit access stairs shall be permitted to be unenclosed in two-story, single-tenant spaces that are provided with a single exit in accordance with 39.2.4.6.
- (3) Unprotected vertical openings shall be permitted in buildings complying with all of the following:
 - (a) Where protected throughout by an approved automatic sprinkler system in accordance with 9.7.1.1(1)
 - (b) Where no unprotected vertical opening serves as any part of any required means of egress
 - (c) Where required exits consist of exit doors that discharge directly to grade in accordance with 7.2.1, outside stairs in accordance with 7.2.2, smokeproof enclosures in accordance with 7.2.3, or horizontal exits in accordance with 7.2.4

39.3.1.2 Floors that are below the street floor and are used for storage or other than a business occupancy shall have no unprotected openings to business occupancy floors.

39.3.2 Protection from Hazards.

39.3.2.1* General. Hazardous areas including, but not limited to, areas used for general storage, boiler or furnace rooms, and maintenance shops that include woodworking and painting areas shall be protected in accordance with Section 8.7.

39.3.2.2* High Hazard Contents Areas. High hazard contents areas, as classified in Section 6.2, shall meet the following criteria:

- (1) The area shall be separated from other parts of the building by fire barriers having a fire resistance rating of not less than 1 hour, with all openings therein protected by ¾-hour, fire protection-rated, self-closing fire door assemblies.
- (2) The area shall be protected by an automatic extinguishing system in accordance with 9.7.1.1(1) or 9.7.1.2.

39.3.2.3 Cooking Equipment. Cooking equipment shall be protected in accordance with 9.2.3, unless the cooking equipment is one of the following types:

- (1) Outdoor equipment
- (2) Portable equipment not flue connected
- (3) Equipment used only for food warming

39.3.3 Interior Finish.

39.3.3.1 General. Interior finish shall be in accordance with Section 10.2.

39.3.3.2 Interior Wall and Ceiling Finish.

39.3.3.2.1 Interior wall and ceiling finish materials complying with Section 10.2 shall be Class A or Class B in exits and in exit access corridors.

39.3.3.2.2 Interior wall and ceiling finishes shall be Class A, Class B, or Class C in areas other than those specified in 39.3.3.2.1.

39.3.3.3 Interior Floor Finish. (No requirements)

39.3.4 Detection, Alarm, and Communications Systems.

39.3.4.1 General. A fire alarm system in accordance with Section 9.6 shall be provided in all business occupancies where any one of the following conditions exists:

- (1) The building is two or more stories in height above the level of exit discharge.
- (2) The occupancy is subject to 100 or more occupants above or below the level of exit discharge.
- (3) The occupancy is subject to 1000 or more total occupants.

39.3.4.2 Initiation. Initiation of the required fire alarm system shall be by one of the following means:

- (1) Manual means in accordance with 9.6.2.1(1)
- (2) Means of an approved automatic fire detection system that complies with 9.6.2.1(2) and provides protection throughout the building
- (3) Means of an approved automatic sprinkler system that complies with 9.6.2.1(3) and provides protection throughout the building

39.3.4.3 Occupant Notification. During all times that the building is occupied (*see* 7.2.1.1.3), the required fire alarm system, once initiated, shall perform one of the following functions:

- (1) It shall activate a general alarm in accordance with 9.6.3 throughout the building, and the following also shall apply:
 - (a) Positive alarm sequence in accordance with 9.6.3.4 shall be permitted.
 - (b) A presignal system in accordance with 9.6.3.3 shall be permitted.
- (2) It shall activate an alarm signal in a continuously attended location for the purpose of initiating emergency action, by personnel trained to respond to emergencies, as follows:
 - (a) Emergency action shall be initiated by means of live voice public address system announcements originating from the attended location where the alarm signal is received, unless otherwise permitted by 39.3.4.3(2)(c).
 - (b) The live voice public address system shall be permitted to be used for other announcements, provided that the emergency action use takes precedence over any other use.
 - (c) In lieu of live voice public address system announcements, any other occupant notification means in accordance with 9.6.3 shall be permitted.

39.3.5 Extinguishment Requirements. Portable fire extinguishers shall be provided in every business occupancy in accordance with 9.7.4.1.

39.3.6 Corridors. (No requirements)

39.3.7 Subdivision of Building Spaces. (No special requirements)

39.4 Special Provisions.

39.4.1 Limited Access or Underground Buildings. See Section 11.7.

39.4.2 High-Rise Buildings.

39.4.2.1 All high-rise business occupancy buildings shall be provided with a reasonable degree of safety from fire, and

such degree of safety shall be accomplished by one of the following means:

- (1) Installation of a complete, approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1)
- (2) Installation of an engineered life safety system, complying with the following:
 - (a) The engineered life safety system shall be developed by a registered professional engineer experienced in fire and life safety systems design.
 - (b) The life safety system shall be approved by the authority having jurisdiction and shall be permitted to include any or all of the following systems:
 - i. Partial automatic sprinkler protection
 - ii. Smoke detection alarms
 - iii. Smoke control
 - iv. Compartmentation
 - v. Other approved systems

39.4.2.2* A limited, but reasonable, time shall be permitted for compliance with any part of 39.4.2.1, commensurate with the magnitude of expenditure and the disruption of services.

39.4.2.3 In addition to the requirements of 39.4.2.1 and 39.4.2.2, all buildings, regardless of height, shall comply with all other applicable provisions of this chapter.

39.5 Building Services.

39.5.1 Utilities. Utilities shall comply with the provisions of Section 9.1.

39.5.2 Heating, Ventilating, and Air-Conditioning. Heating, ventilating, and air-conditioning equipment shall comply with the provisions of Section 9.2.

39.5.3 Elevators, Escalators, and Conveyors. Elevators, escalators, and conveyors shall comply with the provisions of Section 9.4.

39.5.4 Rubbish Chutes, Incinerators, and Laundry Chutes. Rubbish chutes, incinerators, and laundry chutes shall comply with the provisions of Section 9.5.

39.6 Reserved.

39.7 Operating Features.

39.7.1 Drills. In all business occupancy buildings occupied by more than 500 persons, or by more than 100 persons above or below the street level, employees and supervisory personnel shall be periodically instructed in accordance with Section 4.7 and shall hold drills periodically where practicable.

39.7.2 Extinguisher Training. Designated employees of business occupancies shall be periodically instructed in the use of portable fire extinguishers.

39.7.3 Food Service Operations. Food service operations shall comply with 13.7.2.

39.7.4 Upholstered Furniture and Mattresses. The provisions of 10.3.2 shall not apply to upholstered furniture and mattresses.

Chapter 40 Industrial Occupancies

40.1 General Requirements.

40.1.1 Application.

40.1.1.1 The requirements of this chapter shall apply to both new and existing industrial occupancies.